

ABSTRACT

[1114] Techniques to determine data rates for a number of data streams transmitted via a number of transmission channels (or transmit antennas) in a multi-channel (e.g., MIMO) communication system. In one method, the "required" SNR for each data rate to be used is initially determined, with at least two data rates being unequal. The "effective" SNR for each data stream is also determined based on the received SNR and successive interference cancellation processing at the receiver to recover the data streams. The required SNR for each data stream is then compared against its effective SNR. The data rates are deemed to be supported if the required SNR for each data stream is less than or equal to its effective SNR. A number of sets of data rates may be evaluated, and the rate set associated with the minimum received SNR may be selected for use for the data streams.